

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-112629

(43)Date of publication of application : 23.04.1999

(51)Int.Cl.

H04M 1/02
G06F 1/16
H04Q 7/32
H04M 1/21

(21)Application number : 09-272850

(71)Applicant : SONY CORP

(22)Date of filing : 06.10.1997

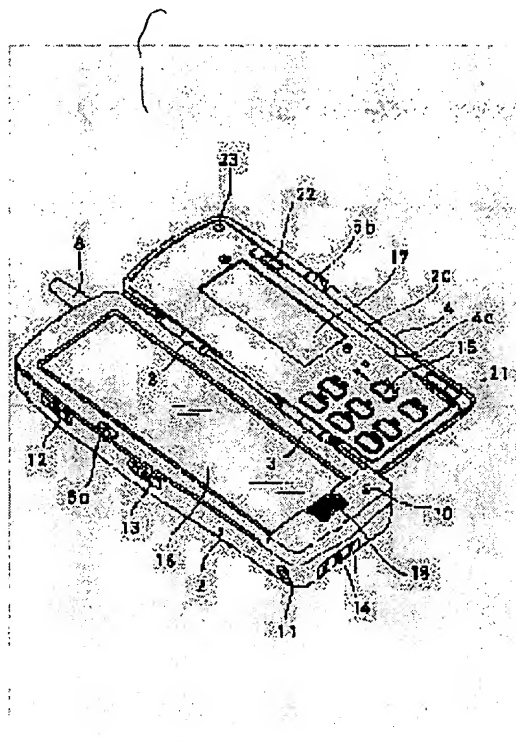
(72)Inventor : MIYAZAKI SHUICHI

(54) PORTABLE INFORMATION TERMINAL

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a portable information terminal in which a buffer function by using buffer members to buffer shocks when an upper cover is closed and an anti-slipping function for holding a touch pen are provided.

SOLUTION: A touch pen 20 is contained in an open end side of a rear side of an upper cover 4 that is hinged to a main body 2 of the portable information terminal by hinges 3 so as to be exposed on a same plane as the upper cover 4 retractively, buffer members 21, 22 are fitted to the exposed part of a touch pen 20 and a buffer function by using the buffer members 21, 22 for buffering shocks, when the upper cover 4 is closed and an anti-slipping function for holding the touch pen 20 are obtained.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than
the examiner's decision of rejection or
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention obtains a buffer function when a buffer member stops a top cover, and the skid function when holding a touch pen by having attached the buffer member in the touch pen contained in detail possible [receipts and payments from the rear face of the top cover which can open and close a Personal Digital Assistant machine] about the Personal Digital Assistant machine represented by the cellular phone.

[0002]

[Description of the Prior Art] The external view of the top-cover disconnection condition of an example of a Personal Digital Assistant machine (only henceforth a terminal) which has the top cover which can be opened and closed to drawing 4 is shown. This example shows an electronic notebook, facsimile, and a terminal equipped with other functions with the function of a cellular phone.

[0003] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b in the state of the closedown of a top cover 4, by actuation of the opening tongue which is not illustrated, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0004] The manual operation button group which is not illustrated for operating a cellular phone is arranged at the front-face side (drawing inferior-surface-of-tongue side of a top cover) of a top cover 4. In addition, the charge terminal 14 of the antenna 8 for transmission and reception, a microphone 10, the earphone jack 11, the hold switch 12 for operation mistake prevention, and 13 or 3 power-source ON / off switches is arranged at the body section 2 of a terminal.

[0005] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. 18 shows a JOKU dial and can perform delivery actuation of data by which memory is carried out, such as an address book displayed on the liquid crystal screen 16.

[0006] By the way, since the various electronic parts for functions, such as a cellular phone, and an electronic notebook, facsimile, are built in the body section 2 of a terminal, or a top cover 4, it is required for the body section 2 of a terminal, and a top cover 4 to make it not get an impact accompanying switching operation. For this reason, when the buffer members 19 and 19 which become a corner part by the side of the open end of the rear face of a top cover 4 from rubber material etc. are attached and the closedown of the top cover 4 is carried out, by the buffer members 19 and 19, the operation of the cushion which buffers an impact with the body section 2 of a terminal was acquired, and the body section 2 of a terminal and a top cover 4 are protected from the impact.

[0007]

[Problem(s) to be Solved by the Invention] By the way, the buffer members 19 and 19 mentioned above remain in the function for the cushion for buffering the impact when stopping a top cover 4 in the body section 2 of a terminal.

[0008] This invention aims at obtaining the Personal Digital Assistant machine which was made in order to cancel a technical problem which was mentioned above, and also becomes the buffer function of the impact at the time of a top-cover closedown, and a skid function when holding a touch pen about a buffer member.

[0009]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, with a hinge, the touch pen which can be taken in and out of the rear face of the top cover whose closing motion was enabled is contained by the body section of a Personal Digital Assistant machine, and the Personal Digital Assistant machine by this invention attaches a buffer member in the exposure on the rear face of a top cover of a touch pen at it.

[0010] By this, a buffer member can obtain the backlash stop of the top cover in a closedown condition with the buffer function of an impact with the body section at the time of the closedown of a top cover, and a touch pen can be taken out from a top cover and a buffer member can obtain a skid function in the case of use of a pen.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of operation of the Personal Digital Assistant machine by this invention is explained with reference to a drawing. The perspective view of the Personal Digital Assistant machine which depends drawing 1 on this example, and drawing 2 are the perspective views of the top-cover disconnection condition of a Personal Digital Assistant machine, and a Personal Digital Assistant machine attaches and explains the same sign to the same part as the component explained in the conventional example mentioned above.

[0012] In drawing, the Personal Digital Assistant machine 1 (henceforth a terminal 1) is equipped with the function of an electronic notebook, facsimile, and others with the function of a cellular phone in this example.

[0013] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b (refer to drawing 2) in the state of the closedown of a top cover 4, by actuation of the opening tongue 5, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0014] The manual operation button group 6 for operating a cellular phone to a top cover 4 is arranged, and the sending signal is displayed on the liquid crystal screen 7. For the antenna for transmission and reception in a sign 8, and 9, as for a microphone, hold SUIKKU for [11] malfunction prevention in an earphone jack and 12, and 13, a loudspeaker and 10 are [power-source ON / off switch, and 14] charge terminals.

[0015] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. For example, data by which memory is carried out, such as an address book currently displayed on the liquid crystal screen 16 from the window part 17, can be seen, and delivery actuation of the data on a liquid crystal screen is possible by actuation of the jog dial 18.

[0016] Now, the touch pen 20 for carrying out touch actuation of the liquid crystal screen 16 at the open end side is contained by the rear face of a top cover 4. The touch pen 20 can be inserted in a slide type from a nib side, and can be taken in and out of receipt crevice 4a by which the end section was opened wide, and the touch pen 20 of a receipt condition is contained so that the whole surface may be exposed on the same flat surface as the rear face of a top cover 4.

[0017] With nib one end of the touch pen 20, as the double-width buffer member 21 which consists of

rubber material projects in the exposure of the opposite side slightly, it is embedded at it, and it is attached in it, and 21 is located in one corner part of a top cover 4 by this buffer member in the receipt condition of the touch pen 20. Moreover, as the buffer member 22 of the shape of a narrow width which consists of rubber material as well as the exposure of nib one end of the touch pen 20 projects slightly, it is embedded, and it is attached.

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

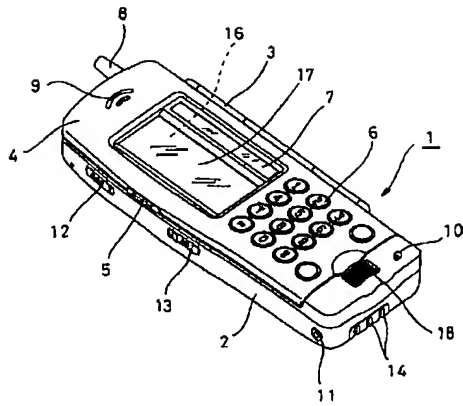
[Claim 1] In the Personal Digital Assistant machine which has the top cover whose closing motion made the hinge the supporting-point section to the body section of a Personal Digital Assistant machine, and was enabled It is contained possible [receipts and payments of a touch pen] so that it may expose to the open end side of the rear face of the above-mentioned top cover on the same flat surface as the top cover concerned. The Personal Digital Assistant machine which a buffer member is attached in the above-mentioned exposed part at least, and is characterized by obtaining a skid function when [of the above-mentioned touch pen] the above-mentioned buffer member holds the above-mentioned touch pen with a buffer function with the above-mentioned body section at the time of the closedown of the above-mentioned top cover.

[Claim 2] The Personal Digital Assistant machine characterized by being attached also in a hand part when the above-mentioned buffer member holds the above-mentioned touch pen in a Personal Digital Assistant machine according to claim 1.

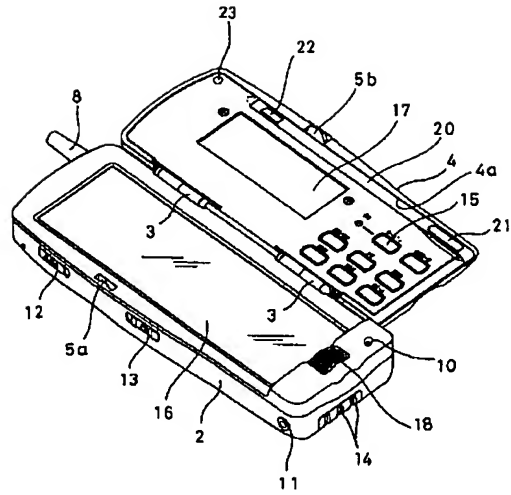
[Claim 3] The Personal Digital Assistant machine characterized by attaching the above-mentioned buffer member also in the corner part by the side of the open end on the above-mentioned rear face of a top cover in a Personal Digital Assistant machine according to claim 1.

[Translation done.]

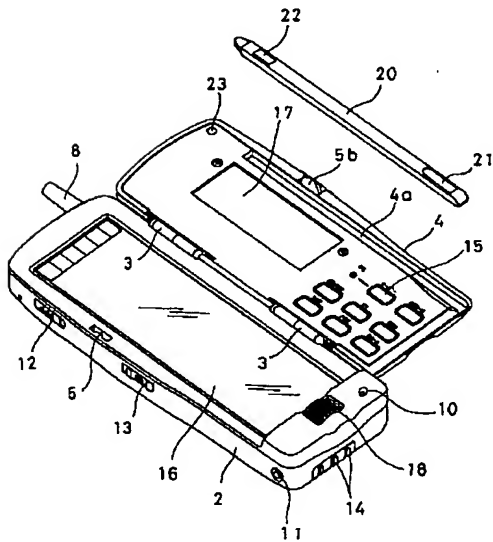
【図1】



【図2】

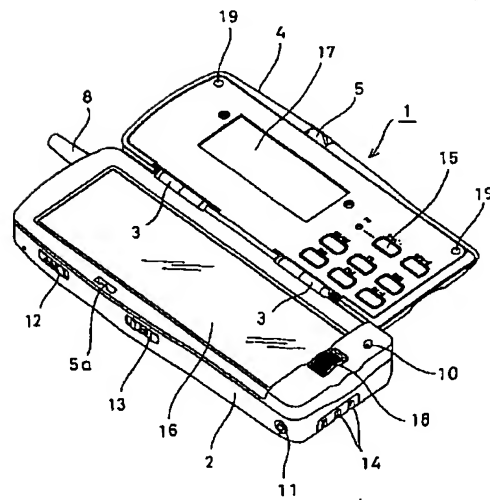


【図3】



- 2 端末機本体部
- 4 上蓋
- 20 タッチペン
- 21 hinge 部材
- 22 hinge 部材

【図4】



* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] In the Personal Digital Assistant machine which has the top cover whose closing motion made the hinge the supporting-point section to the body section of a Personal Digital Assistant machine, and was enabled It is contained possible [receipts and payments of a touch pen] so that it may expose to the open end side of the rear face of the above-mentioned top cover on the same flat surface as the top cover concerned. The Personal Digital Assistant machine which a buffer member is attached in the above-mentioned exposed part at least, and is characterized by obtaining a skid function when [of the above-mentioned touch pen] the above-mentioned buffer member holds the above-mentioned touch pen with a buffer function with the above-mentioned body section at the time of the closedown of the above-mentioned top cover.

[Claim 2] The Personal Digital Assistant machine characterized by being attached also in a part for hand Motobe when the above-mentioned buffer member holds the above-mentioned touch pen in a Personal Digital Assistant machine according to claim 1.

[Claim 3] The Personal Digital Assistant machine characterized by attaching the above-mentioned buffer member also in the corner part by the side of the open end on the above-mentioned rear face of a top cover in a Personal Digital Assistant machine according to claim 1.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention obtains a buffer function when a buffer member stops a top cover, and the skid function when holding a touch pen by having attached the buffer member in the touch pen contained in detail possible [receipts and payments from the rear face of the top cover which can open and close a Personal Digital Assistant machine] about the Personal Digital Assistant machine represented by the cellular phone.

[0002]

[Description of the Prior Art] The external view of the top-cover disconnection condition of an example of a Personal Digital Assistant machine (only henceforth a terminal) which has the top cover which can be opened and closed to drawing 4 is shown. This example shows an electronic notebook, facsimile, and a terminal equipped with other functions with the function of a cellular phone.

[0003] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b in the state of the closedown of a top cover 4, by actuation of the opening tongue which is not illustrated, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0004] The manual operation button group which is not illustrated for operating a cellular phone is arranged at the front-face side (drawing underside side of a top cover) of a top cover 4. In addition, the charge terminal 14 of the antenna 8 for transmission and reception, a microphone 10, the earphone jack 11, the hold switch 12 for operation mistake prevention, and 13 or 3 power-source ON / off switches is arranged at the body section 2 of a terminal.

[0005] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. 18 shows a JOKU dial and can perform delivery actuation of data by which memory is carried out, such as an address book displayed on the liquid crystal screen 16.

[0006] By the way, since the various electronic parts for functions, such as a cellular phone, and an electronic notebook, facsimile, are built in the body section 2 of a terminal, or a top cover 4, it is required for the body section 2 of a terminal, and a top cover 4 to make it not get an impact accompanying switching operation. For this reason, when the buffer members 19 and 19 which become a corner part by the side of the open end of the rear face of a top cover 4 from rubber material etc. are attached and the closedown of the top cover 4 is carried out, by the buffer members 19 and 19, the operation of the cushion which buffers an impact with the body section 2 of a terminal was acquired, and the body section 2 of a terminal and a top cover 4 are protected from the impact.

[0007]

[Problem(s) to be Solved by the Invention] By the way, the buffer members 19 and 19 mentioned above remain in the function for the cushion for buffering the impact when stopping a top cover 4 in the body section 2 of a terminal.

[0008] This invention aims at obtaining the Personal Digital Assistant machine which was made in order to cancel a technical problem which was mentioned above, and also becomes the buffer function of the impact at the time of a top-cover closedown, and a skid function when holding a touch pen about a buffer member.

[0009]

[Means for Solving the Problem] In order to attain the above-mentioned object, with a hinge, the touch pen which can be taken in and out of the rear face of the top cover whose closing motion was enabled is contained by the body section of a Personal Digital Assistant machine, and the Personal Digital Assistant machine by this invention attaches a buffer member in the exposed surface on the rear face of a top cover of a touch pen at it.

[0010] By this, a buffer member can obtain the backlash stop of the top cover in a closedown condition with the buffer function of an impact with the body section at the time of the closedown of a top cover, and a buffer member can obtain a skid function in the case of the ejection from a top cover and the activity of a pen of a touch pen.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of operation of the Personal Digital Assistant machine by this invention is explained with reference to a drawing. The perspective view of the Personal Digital Assistant machine which depends drawing 1 on this example, and drawing 2 are the perspective views of the top-cover disconnection condition of a Personal Digital Assistant machine, and a Personal Digital Assistant machine attaches and explains the same sign to the same part as the component explained in the conventional example mentioned above.

[0012] In drawing, the Personal Digital Assistant machine 1 (henceforth a terminal 1) is equipped with the function of an electronic notebook, facsimile, and others with the function of a cellular phone in this example.

[0013] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b (refer to drawing 2) in the state of the closedown of a top cover 4, by actuation of the opening tongue 5, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0014] The manual operation button group 6 for operating a cellular phone to a top cover 4 is arranged, and the sending signal is displayed on the liquid crystal screen 7. For the antenna for transmission and reception in a sign 8, and 9, as for a microphone, hold SUIKKU for [11] malfunction prevention in an earphone jack and 12, and 13, a loudspeaker and 10 are [power-source ON / off switch, and 14] charge terminals.

[0015] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. For example, data by which memory is carried out, such as an address book currently displayed on the liquid crystal screen 16 from the window part 17, can be seen, and delivery actuation of the data on a liquid crystal screen is possible by actuation of the jog dial 18.

[0016] Now, the touch pen 20 for carrying out touch actuation of the liquid crystal screen 16 at the open end side is contained by the rear face of a top cover 4. The touch pen 20 can be inserted in a slide type from a nib side, and can be taken in and out of receipt crevice 4a by which the end section was opened, and the touch pen 20 of a receipt condition is contained so that the whole surface may be exposed on the same flat surface as the rear face of a top cover 4.

[0017] With nib one end of the touch pen 20, as the double-width buffer member 21 which consists of

rubber material projects in the exposed surface of an opposite hand slightly, it is embedded at it, and it is attached in it, and 21 is located in one corner part of a top cover 4 by this buffer member in the receipt condition of the touch pen 20. Moreover, as the buffer member 22 of the shape of a narrow width which consists of rubber material as well as the exposed surface of nib one end of the touch pen 20 projects slightly, it is embedded, and it is attached. Furthermore, in the buffer member 21, as the buffer member 23 projects into the corner part of another side of the top cover 4 of an opposite hand slightly, it is embedded, and it is attached in it.

[0018] Thus, the constituted Personal Digital Assistant machine can obtain a function and the function of the backlash stop of the top cover 4 when stopping as a cushion with which the buffer members 21 and 22 attached in the touch pen 20 and the buffer member 23 attached in the top cover 4 buffer the impact when stopping a top cover 4.

[0019] Moreover, when taking out the touch pen 20 from a top cover 4 for the activity of a terminal 1, the buffer member 21 is caught in a finger, serves as a key of ejection, and can make ejection of the touch pen 20 easy. And although pen actuation of the liquid crystal screen 16 is carried out using the taken-out touch pen 20, when a user holds the touch pen 20, the buffer members 21 and 22 can obtain the function as a skid to a finger.

[0020] Deformation implementation various by within the limits which is not limited to the gestalt which mentioned above and was shown in the drawing, and does not deviate from the summary is possible for this invention.

[0021] In addition, although it showed the case where it attached only in the exposed-surface side of the touch pen 20 of a receipt condition, by this example, if a buffer member is attached in pen parts other than this, while the skid function of installation of the buffer members 21 and 22 to the touch pen 20 when holding the touch pen 20 will improve further, it can prevent what a friction operation arises on the touch pen 20 of a receipt condition, and slips out.

[0022]

[Effect of the Invention] As explained above, the Personal Digital Assistant machine of this invention While a buffer member can obtain the buffer function of an impact with the body section at the time of the closedown of a top cover by having contained the touch pen which can be taken in and out of the rear face of the top cover whose closing motion to a Personal Digital Assistant machine was enabled, and having attached the buffer member in the touch pen It is effective in the ability of the so-called buffer member to obtain the backlash stop function of the top cover of a closedown condition, and for a buffer member obtain the function of a skid in the case of the ejection from a top cover and the activity of a pen of a touch pen, and obtain the function in which the objects differ. Moreover, since the function in which buffer members differ can be obtained, the design of an appearance can feel it refreshed and can raise salability.

[0023] Moreover, in claim 2, the skid at the time of holding a touch pen can improve further by having attached the buffer member also in a part for hand Motobe when holding a touch pen.

[0024] Moreover, in claim 3, by having attached the buffer member also in the corner part by the side of the open end on the rear face of a top cover, buffer action of an impact can be effectively performed with the buffer member by the side of a touch pen at the time of a top-cover closedown, and the backlash stop in a top-cover closedown condition can also be performed certainly.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL FIELD

[Field of the Invention] This invention obtains a buffer function when a buffer member stops a top cover, and the skid function when holding a touch pen by having attached the buffer member in the touch pen contained in detail possible [receipts and payments from the rear face of the top cover which can open and close a Personal Digital Assistant machine] about the Personal Digital Assistant machine represented by the cellular phone.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art] The external view of the top-cover disconnection condition of an example of a Personal Digital Assistant machine (only henceforth a terminal) which has the top cover which can be opened and closed to drawing 4 is shown. This example shows an electronic notebook, facsimile, and a terminal equipped with other functions with the function of a cellular phone.

[0003] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b in the state of the closedown of a top cover 4, by actuation of the opening tongue which is not illustrated, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0004] The manual operation button group which is not illustrated for operating a cellular phone is arranged at the front-face side (drawing underside side of a top cover) of a top cover 4. In addition, the charge terminal 14 of the antenna 8 for transmission and reception, a microphone 10, the earphone jack 11, the hold switch 12 for operation mistake prevention, and 13 or 3 power-source ON / off switches is arranged at the body section 2 of a terminal.

[0005] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. 18 shows a JOKU dial and can perform delivery actuation of data by which memory is carried out, such as an address book displayed on the liquid crystal screen 16.

[0006] By the way, since the various electronic parts for functions, such as a cellular phone, and an electronic notebook, facsimile, are built in the body section 2 of a terminal, or a top cover 4, it is required for the body section 2 of a terminal, and a top cover 4 to make it not get an impact accompanying switching operation. For this reason, when the buffer members 19 and 19 which become a corner part by the side of the open end of the rear face of a top cover 4 from rubber material etc. are attached and the closedown of the top cover 4 is carried out, by the buffer members 19 and 19, the operation of the cushion which buffers an impact with the body section 2 of a terminal was acquired, and the body section 2 of a terminal and a top cover 4 are protected from the impact.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, it is the Personal Digital Assistant machine of this invention, While a buffer member can obtain the buffer function of an impact with the body section at the time of the closedown of a top cover by having contained the touch pen which can be taken in and out of the rear face of the top cover whose closing motion to a Personal Digital Assistant machine was enabled, and having attached the buffer member in the touch pen It is effective in the ability of the so-called buffer member to obtain the backlash stop function of the top cover of a closedown condition, and for a buffer member obtain the function of a skid in the case of the ejection from a top cover and the activity of a pen of a touch pen, and obtain the function in which the objects differ. Moreover, since the function in which buffer members differ can be obtained, the design of an appearance can feel it refreshed and can raise salability.

[0023] Moreover, in claim 2, the skid at the time of holding a touch pen can improve further by having attached the buffer member also in a part for hand Motobe when holding a touch pen.

[0024] Moreover, in claim 3, by having attached the buffer member also in the corner part by the side of the open end on the rear face of a top cover, buffer action of an impact can be effectively performed with the buffer member by the side of a touch pen at the time of a top-cover closedown, and the backlash stop in a top-cover closedown condition can also be performed certainly.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, it is the Personal Digital Assistant machine of this invention, While a buffer member can obtain the buffer function of an impact with the body section at the time of the closedown of a top cover by having contained the touch pen which can be taken in and out of the rear face of the top cover whose closing motion to a Personal Digital Assistant machine was enabled, and having attached the buffer member in the touch pen It is effective in the ability of the so-called buffer member to obtain the backlash stop function of the top cover of a closedown condition, and for a buffer member obtain the function of a skid in the case of the ejection from a top cover and the activity of a pen of a touch pen, and obtain the function in which the objects differ. Moreover, since the function in which buffer members differ can be obtained, the design of an appearance can feel it refreshed and can raise salability.

[0023] Moreover, in claim 2, the skid at the time of holding a touch pen can improve further by having attached the buffer member also in a part for hand Motobe when holding a touch pen.

[0024] Moreover, in claim 3, by having attached the buffer member also in the corner part by the side of the open end on the rear face of a top cover, buffer action of an impact can be effectively performed with the buffer member by the side of a touch pen at the time of a top-cover closedown, and the backlash stop in a top-cover closedown condition can also be performed certainly.

[Translation done.]

JAPANESE

[JP,11-112629,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE
INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS DRAWINGS

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] In order to attain the above-mentioned object, with a hinge, the touch pen which can be taken in and out of the rear face of the top cover whose closing motion was enabled is contained by the body section of a Personal Digital Assistant machine, and the Personal Digital Assistant machine by this invention attaches a buffer member in the exposed surface on the rear face of a top cover of a touch pen at it.

[0010] By this, a buffer member can obtain the backlash stop of the top cover in a closedown condition with the buffer function of an impact with the body section at the time of the closedown of a top cover, and a buffer member can obtain a skid function in the case of the ejection from a top cover and the activity of a pen of a touch pen.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of operation of the Personal Digital Assistant machine by this invention is explained with reference to a drawing. The perspective view of the Personal Digital Assistant machine which depends drawing 1 on this example, and drawing 2 are the perspective views of the top-cover disconnection condition of a Personal Digital Assistant machine, and a Personal Digital Assistant machine attaches and explains the same sign to the same part as the component explained in the conventional example mentioned above.

[0012] In drawing, the Personal Digital Assistant machine 1 (henceforth a terminal 1) is equipped with the function of an electronic notebook, facsimile, and others with the function of a cellular phone in this example.

[0013] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b (refer to drawing 2) in the state of the closedown of a top cover 4, by actuation of the opening tongue 5, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0014] The manual operation button group 6 for operating a cellular phone to a top cover 4 is arranged, and the sending signal is displayed on the liquid crystal screen 7. For the antenna for transmission and reception in a sign 8, and 9, as for a microphone, hold SUIKKU for [11] malfunction prevention in an earphone jack and 12, and 13, a loudspeaker and 10 are [power-source ON / off switch, and 14] charge terminals.

[0015] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. For example, data by which memory is carried out, such as an address book currently displayed on the liquid crystal screen 16 from the window part 17, can be seen, and delivery actuation of the data on a liquid crystal screen is possible by actuation of the jog dial 18.

[0016] Now, the touch pen 20 for carrying out touch actuation of the liquid crystal screen 16 at the open

end side is contained by the rear face of a top cover 4. The touch pen 20 can be inserted in a slide type from a nib side, and can be taken in and out of receipt crevice 4a by which the end section was opened, and the touch pen 20 of a receipt condition is contained so that the whole surface may be exposed on the same flat surface as the rear face of a top cover 4.

[0017] With nib one end of the touch pen 20, as the double-width buffer member 21 which consists of rubber material projects in the exposed surface of an opposite hand slightly, it is embedded at it, and it is attached in it, and 21 is located in one corner part of a top cover 4 by this buffer member in the receipt condition of the touch pen 20. Moreover, as the buffer member 22 of the shape of a narrow width which consists of rubber material as well as the exposed surface of nib one end of the touch pen 20 projects slightly, it is embedded, and it is attached. Furthermore, in the buffer member 21, as the buffer member 23 projects into the corner part of another side of the top cover 4 of an opposite hand slightly, it is embedded, and it is attached in it.

[0018]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] In order to attain the above-mentioned object, with a hinge, the touch pen which can be taken in and out of the rear face of the top cover whose closing motion was enabled is contained by the body section of a Personal Digital Assistant machine, and the Personal Digital Assistant machine by this invention attaches a buffer member in the exposed surface on the rear face of a top cover of a touch pen at it.

[0010] By this, a buffer member can obtain the backlash stop of the top cover in a closedown condition with the buffer function of an impact with the body section at the time of the closedown of a top cover, and a buffer member can obtain a skid function in the case of the ejection from a top cover and the activity of a pen of a touch pen.

[0011]

[Embodiment of the Invention] Hereafter, the gestalt of operation of the Personal Digital Assistant machine by this invention is explained with reference to a drawing. The perspective view of the Personal Digital Assistant machine which depends drawing 1 on this example, and drawing 2 are the perspective views of the top-cover disconnection condition of a Personal Digital Assistant machine, and a Personal Digital Assistant machine attaches and explains the same sign to the same part as the component explained in the conventional example mentioned above.

[0012] In drawing, the Personal Digital Assistant machine 1 (henceforth a terminal 1) is equipped with the function of an electronic notebook, facsimile, and others with the function of a cellular phone in this example.

[0013] A terminal 1 is equipped with the top cover 4 whose closing motion was enabled by making a hinge 3 into the supporting-point section at the body section 2 of a terminal, the stoppage of it is enabled by the lid lock devices 5a and 5b (refer to drawing 2) in the state of the closedown of a top cover 4, by actuation of the opening tongue 5, the lid lock devices 5a and 5b are canceled, and disconnection of it is attained.

[0014] The manual operation button group 6 for operating a cellular phone to a top cover 4 is arranged, and the sending signal is displayed on the liquid crystal screen 7. For the antenna for transmission and reception in a sign 8, and 9, as for a microphone, hold SUIKKU for [11] malfunction prevention in an earphone jack and 12, and 13, a loudspeaker and 10 are [power-source ON / off switch, and 14] charge terminals.

[0015] Moreover, the menu screen key 15 for operating functions, such as an electronic notebook and facsimile, in the rear face of a top cover 4 is arranged, and it is displayed on the liquid crystal screen 16 of the top face of the body section 2 of a terminal by carrying out selection actuation of this menu screen key 15. Moreover, a window part 17 is formed in a top cover 4, and he is trying for some liquid crystal screens 16 to be visible to it from this window part 17 in the closedown condition of a top cover 4. For example, data by which memory is carried out, such as an address book currently displayed on the liquid crystal screen 16 from the window part 17, can be seen, and delivery actuation of the data on a liquid crystal screen is possible by actuation of the jog dial 18.

[0016] Now, the touch pen 20 for carrying out touch actuation of the liquid crystal screen 16 at the open

end side is contained by the rear face of a top cover 4. The touch pen 20 can be inserted in a slide type from a nib side, and can be taken in and out of receipt crevice 4a by which the end section was opened, and the touch pen 20 of a receipt condition is contained so that the whole surface may be exposed on the same flat surface as the rear face of a top cover 4.

[0017] With nib one end of the touch pen 20, as the double-width buffer member 21 which consists of rubber material projects in the exposed surface of an opposite hand slightly, it is embedded at it, and it is attached in it, and 21 is located in one corner part of a top cover 4 by this buffer member in the receipt condition of the touch pen 20. Moreover, as the buffer member 22 of the shape of a narrow width which consists of rubber material as well as the exposed surface of nib one end of the touch pen 20 projects slightly, it is embedded, and it is attached. Furthermore, in the buffer member 21, as the buffer member 23 projects into the corner part of another side of the top cover 4 of an opposite hand slightly, it is embedded, and it is attached in it.

[0018] Thus, the constituted Personal Digital Assistant machine can obtain a function and the function of the backlash stop of the top cover 4 when stopping as a cushion with which the buffer members 21 and 22 attached in the touch pen 20 and the buffer member 23 attached in the top cover 4 buffer the impact when stopping a top cover 4.

[0019] Moreover, when taking out the touch pen 20 from a top cover 4 for the activity of a terminal 1, the buffer member 21 is caught in a finger, serves as a key of ejection, and can make ejection of the touch pen 20 easy. And although pen actuation of the liquid crystal screen 16 is carried out using the taken-out touch pen 20, when a user holds the touch pen 20, the buffer members 21 and 22 can obtain the function as a skid to a finger.

[0020] Deformation implementation various by within the limits which is not limited to the gestalt which mentioned above and was shown in the drawing, and does not deviate from the summary is possible for this invention.

[0021] In addition, although it showed the case where it attached only in the exposed-surface side of the touch pen 20 of a receipt condition, by this example, if a buffer member is attached in pen parts other than this, while the skid function of installation of the buffer members 21 and 22 to the touch pen 20 when holding the touch pen 20 will improve further, it can prevent what a friction operation arises on the touch pen 20 of a receipt condition, and slips out.

[Translation done.]

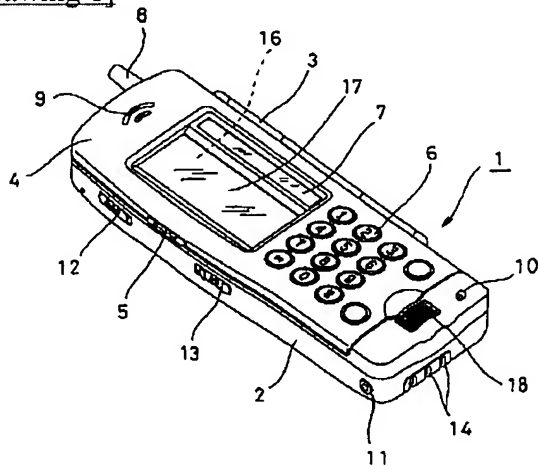
* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

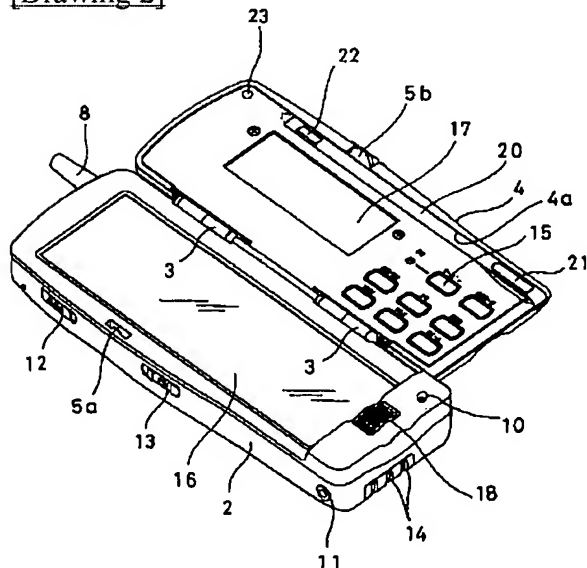
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

[Drawing 1]

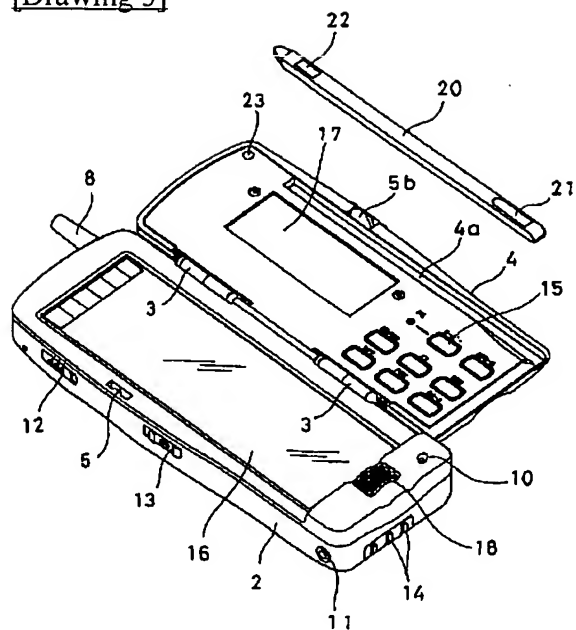


[Drawing 2]

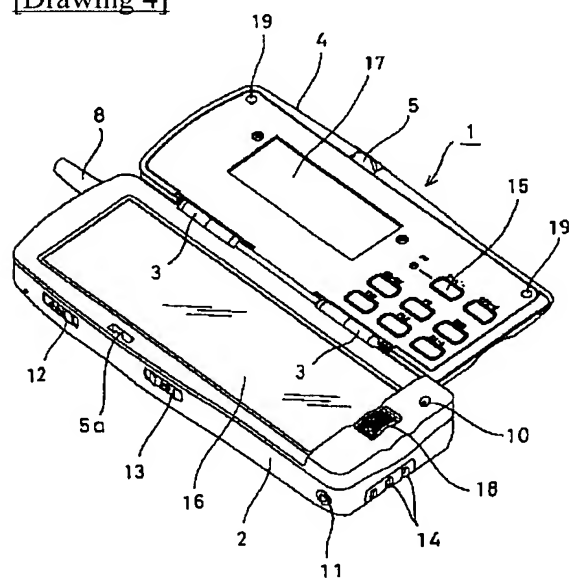


- 2 端末機本体部
- 4 上蓋
- 20 タッチペン
- 21 緩衝部材
- 22 緩衝部材

[Drawing 3]



[Drawing 4]



[Translation done.]